

# CHRISTOPH COX OF HUMANS, ANIMALS, AND MONSTERS

## I. Pre-Post-Erous Humans

An art exhibition that unsettles the boundary between humans and animals presents a paradox. Art – and culture in general – is supposed to be precisely that which defines the boundary in the first place. Whatever our similarities to animals, the argument goes, artistic creativity and aesthetic appreciation are uniquely human. But what happens when tarantulas, wolves, and horses don video cameras to document their daily strolls? When a sculpture imitates the mating ritual of a Panamanian frog? When zebra finches teach us how to read their history and culture, and pigeons train us to communicate with them?

Over the past century and a half, the human/animal divide has been steadily crumbling. Evolutionary biology has thrown human beings back among the animals and has reconceived our exemplary gifts—reason, speech, language, self-consciousness, etc.—as simply “the means by which weaker, less robust individuals preserve themselves—since they have been denied the chance to wage the battle for existence with horns or with the sharp teeth of beasts of prey.” Cognitive neuroscientists and ethologists have recently suggested that the aesthetic impulse is, ultimately, nothing but a survival mechanism we share with such lowly creatures as herring-gull chicks.<sup>2</sup> Moreover, from Kafka’s *Metamorphosis* to *Spiderman 2*, the cultural imagination of modernity has been filled with becomings—animal of all sorts: vampires, werewolves, human flies, elephant men, dog-faced boys, Playboy bunnies, plushies and more. Against this backdrop, *Becoming Animal* suggests that we need to rethink our traditional relationships—biological, ethical, political, aesthetic, affective—to animals and, hence, to reconsider who and what we are.

So who are we, we human beings? To this perennial question, philosophers, scientists, and theologians have offered countless answers and have haggled endlessly about them. But nearly all grudgingly admit that, whatever else one wants to say about us, we human beings are decidedly *hybrid* things—neither

this nor that, but both, or something in between. For much of our history, humans have been thought of as beings that straddle the boundaries between the animal and the divine, matter and the immaterial, nature and reason. The ancient Hebrews set the tone, conceiving man (adam) as a composite of earthly soil (adama) and divine breath. Plato agreed, taking humans to be an irreconcilable and morally unfortunate combination of *soma* and *psyche*, body and mind. These opening moves shaped Western philosophical and religious discourse for millennia. At the beginning of our modern era, they animated the ontological dualism of René Descartes and the moral dualism of Immanuel Kant, both of whom insisted that we human beings live simultaneously in two worlds, one physical, the other metaphysical. “Plac’d in this isthmus of a middle estate,” wrote Alexander Pope in 1732, man “hangs between . . . in doubt to deem himself a god or beast . . . created half to rise, and half to fall . . . the glory, jest, and riddle of the world.”<sup>3</sup>

Since Darwin, we are less inclined to stress our links to the divine and more likely to acknowledge animals as our kin. But, in the past few decades, another term has come to fill the void left by the death of God: the machine. In our cybernetic age, human beings are no longer considered to be hybrids of body and soul, beast and God. We are now fusions of flesh and machine, wetware and software. But this combination is not like the others. For, instead of separating human beings from the rest of nature, it places us firmly within it, suggesting that we are akin not only to animals but also to vegetables and minerals. According to radical biologists, computer scientists, and philosophers today, our attachments to cell phones, laptops, paccmakers, dentures, eyeglasses and automobiles are as natural as the calcium-carbonate shells of pearl oysters or the phosphatic fecal pellets with which tropical termites build their nests. Instead of existing as dumb, inert products of human creativity, machines are seen as having an independent evolution of their own, using human beings as their means of reproduction. Apples, tulips, and grasses are said to have seduced humans into aiding their

efforts to survive and flourish. And computer programs are said to "live," "evolve," "perceive" and "think."<sup>3</sup>

In short, we have become—or are becoming—post-human.<sup>5</sup> What was once thought to represent our break with nature has been shown to be of a piece with the rest of the animate and inanimate world. Of course, in this light, the term "post-human" is a misnomer, for what has been challenged is precisely the progressive temporal language of before and after, lower and higher. The post-human, then, is at the same time pre-human. The post-human turn invites us to reconsider our relationships to both of our evolutionary neighbors: not only have we become machine, we have become animal as well.

## II. Becoming Non-Animal

Animals are uncanny creatures. Like us, they eat, sleep, defecate, copulate, build, perceive, desire, and maybe even think, talk, and have rights. We admire them, paint and photograph them, emblazon them on flags, shields, and currency, and we treat some of them like best friends and members of our families. From Aesop's Fables to Mickey Mouse and *The Far Side*, our stories are filled with humanized animals who reflect us back to ourselves. "There is something charming about an animal become human," the philosopher Simon Critchley aptly notes; but, by the same token, "when the human becomes animal, then the effect is disgusting."<sup>6</sup>

We are surely a kind of animal. Yet we are also repulsed by the thought that we might be *merely* animals, and have spent an enormous amount of time and intellectual energy convincing ourselves that we are something different. It is not much of an exaggeration to say that all of Western morality has been an effort to curb, even to deny, our animal nature—what Plato called "the wild beast in us."<sup>7</sup> The same can be said of religious doctrine, philosophical speculation, political thought, and biological classification: all have been enlisted in the effort to make the case that we are something more, better, and higher than the animal kingdom.

The book of Genesis offers not one creation story but two, each of which highlights, in a different way, the preeminence and uniqueness of human beings in the universe.<sup>8</sup> In the first, God creates the cosmos according to a clear and steady scheme. He begins by ordering inanimate nature (earth, sea, and sky), moves on to create plants, then generates fish, fowl, and

land animals, and finishes his work by conjuring a pair of human beings, one male, the other female. Created in God's image and after his likeness, the human beings are given "dominion over" the entire animal kingdom (though, curiously, they are asked to eat only plants). The second account is rather different. From the soil of a barren landscape, God first creates a solitary human being, then plants a garden, sends rivers flowing through it, and places the lone human in the garden "to dress it and to keep it." Noting that "it is not good that the human should be alone," God sculpts the soil into an array of animals and presents them to the human for him to name and, presumably, to consider as a potential counterpart and mate. When the human finds no suitable partner among the animals, God creates, from the human's side, a woman to be his wife. The first version gives us an initial glimpse of what would later be called the *scala naturae*, the hierarchical ladder of being that runs from mineral to vegetable to animal to man. In the second, the creation of human beings is God's first order of business, and the rest of nature is built around them for their use and their pleasure.

According to Genesis, the first human act is the naming and classifying of animals, an event that is repeated a few chapters later when the earth is again plunged into watery chaos and Noah makes his inventory of the world's creatures. Among the Greeks, Aristotle was the first great taxonomist, and his basic classificatory scheme dominated Western biological discourse until Cuvier and Darwin. Unlike Plato and most other philosophers, Aristotle was a serious biologist whose work was not merely speculative but also empirical, and whose surviving corpus includes a half-dozen books on zoology. It is from Aristotle that we get the idea of the *scala naturae*, the idea that nature can be sorted into hierarchical types. According to Aristotle, nature reaches its perfection in human males, and the rest of the animal kingdom forms a downward ladder from women to sea urchins. Plants form an even lower rung of the ladder, though, tellingly, neither Aristotle nor any other ancient writer showed any interest in offering hierarchical classifications of plants, which, after all, do not seem to threaten the supremacy of the human.<sup>9</sup>

The *scala naturae* was not Aristotle's only gift to biological thought. Equally important was his assumption that biological types are fixed and eternal. Every creature has an essence, he claimed, and variation is to be explained as a deviation from that essence. "[F]or any living thing that has reached its normal development and which is unmutated," Aristotle wrote in *De Anima*, "the most natural act is the production of another like itself, an

animal producing an animal, a plant a plant."<sup>10</sup> For Aristotle, then, there is no becoming-plant, -animal, or -human. There is only being—and reproducing—what one is.

Aristotle's hierarchy is political as well. More baldly than Genesis, he declares that "after the birth of animals, plants exist for their sake, and that the other animals exist for the sake of man, the tame for use and food, the wild . . . for the provision of clothing and other instruments."<sup>11</sup> Indeed, drawing a line between humans and animals did not only have the aim of making us feel good about ourselves by revealing our spiritual superiority. It also helped us not to feel bad about ourselves when we hunted, ate, domesticated, or exterminated the earth's creatures.

The Christian tradition was no less kind to animals. Christians often pictured the Anti-Christ as a beast or, worse yet, as some monstrous hybrid of animal and man. More so even than Judaism, Christianity was decidedly anthropocentric and opposed to naturalism, insisting that there is an unbridgeable divide between the human and the animal. "The beast, lacking a rational soul, is not related to us by a common nature," wrote Augustine. Notwithstanding the modern vogue for the bird-loving Saint Francis of Assisi, any alternative views have conventionally been deemed heresy or paganism. "Doth God take care of oxen?" asked Paul rhetorically, to which the answer was obviously "no!" Indeed, as late as the mid-19<sup>th</sup> century, Pope Pius IX rejected a request to endorse a Society for the Prevention of Cruelty to Animals. "[A] society for such a purpose," he declared, "could not be sanctioned in Rome." Cardinal Newman agreed, remarking that "[w]e have no duties toward the brute creation: there is no relation of justice between them and us . . . . We may use them, we may destroy them at our pleasure . . . provided we can give a rational account of what we do."<sup>12</sup>

Early modern philosophers found yet another way to mark the radical discontinuity between humans and animals. For Descartes, Rousseau, and others, humans were no more similar to animals than they were to clocks or robots. Animals, they insisted, were simply machines or automata, capable of complex behavior but lacking a soul, reason, or feeling. "[I]t is nature that acts in [animals] according to the arrangements of their organs," wrote Descartes, "just as we see how a clock, composed merely of wheels and springs, can reckon the hours and measure time . . ." <sup>13</sup> While disagreeing with Descartes about most other things, on this Rousseau concurred. "I see nothing in any animal but an ingenious machine," he wrote, "to which nature

has given senses to wind itself up, and to guard itself, to a certain degree, against anything that might tend to disorder or destroy it."<sup>14</sup>

This distancing of animals—and nature in general—from human beings is what enabled the great classificatory schemes of the 17<sup>th</sup> and 18<sup>th</sup> centuries. Earlier taxonomies, such as Edward Topsell's *Historie of Four-Footed Beasts* (1607), were blatantly anthropocentric, classifying animals according to such distinctions as edible/inedible, wild/tame, useful/useless. But the Classical Age gradually moved toward a more detached and objective classification that sorted animals and plants with regard to their internal structural characteristics according to strict relations of identity and difference.<sup>15</sup>

Despite their detachment and precision, however, the great early modern taxonomists continued to accept the anthropocentric and essentialist view that nature was a graded hierarchy, each step of which marked out an essential type that was radically discontinuous with its neighbors. It was Darwin who finally dealt the death blow to this idea. Darwin's theory of natural selection insists that there is a basic continuity in nature, not just among species, but among all living things, who ultimately share a common ancestry. For Darwin, there are no essential types in nature, only individuals with more or less similar characteristics. That is, natural selection works by difference and mutation, not by identity or resemblance. Indeed, if there were essential types, evolution could never have gotten off the ground, for it proposes that—given variations, mutations, geographical isolation, time, and other factors—species differentiate, becoming new species. For Darwin, a species is a statistical abstraction, a bell curve that, at the extremities, shades off into other species. As one writer recently put it: "We are all mutants. But some of us are more mutant than others."<sup>16</sup>

Not only did Darwin eliminate the boundaries between species, he also flattened the ancient hierarchy that placed human beings at the top, and he denied that evolution is in any way progressive, that human beings are in any way better than their forebears or any other species. In his copy of Robert Chambers' *Vestiges of the Natural History of Creation*, Darwin famously scribbled the phrase "never use the words higher or lower!" and remarked to a friend that "no innate tendency to progressive development exists [in nature]."<sup>17</sup> Natural selection is local and temporary, lacking any long-range aim or goal. And the complexity of human beings and "higher" animals represents only one of nature's possibilities, by no means the best or highest. Complex creatures simply represent life's diversification in the

only direction available to it.<sup>18</sup>

In the wake of Darwin, several Victorian writers took up these positions and pushed them to the extreme. The novelist and heretical biological theorist Samuel Butler insisted that the evolutionary continuum links human beings not only to animals but also to vegetables and machines.<sup>19</sup> Another Victorian novelist, H. G. Wells, explored the now permeable boundary between humans and animals. Wells was a protégé of "Darwin's Bulldog," T. H. Huxley, and Wells himself taught biology before launching his career as a writer. In his gruesomely fascinating early novel *The Island of Dr. Moreau*, the title character sets out experimentally to reproduce the course of evolutionary history: to fashion animals into human beings. "These creatures you have seen," he explains to a horrified visitor, "are animals carven and wrought into new shapes. To that, to the study of the plasticity of living forms, my life has been devoted." Moreau begins with sheep, but quickly decides that "they are no good for man-making." "Then I took a gorilla I had," Moreau continues, "and upon that, working with infinite care and mastering difficulty after difficulty, I made my first man."

Moreau is ultimately driven by the same revulsion at our "animal nature" that has marked so much of Western civilization. Animals, he declares, are motivated solely by feelings of pain and pleasure, and are beholden to their desires and cravings. But just as moral education amounts to "an artificial modification and perversion of instinct," so, too, Moreau believes, can one physically transform animals into rational beings. He is ultimately disappointed, for, despite his successes at physical moulding and training, the animal nature invariably returns. "First one animal trait, then another, creeps to the surface and stares out at me. But I will conquer it yet!" cries Moreau. "Each time I dip a living creature into the bath of burning pain, I say, 'This time I will burn out all the animal; this time I will make a rational creature of my own!' After all, what is ten years? Men have been a hundred thousand in the making."<sup>20</sup>

What horrifies Moreau is animality itself and the animality of humanity. What horrifies his visitor, Prendrick, is something else: the monstrous hybrid, the uncanny in-between, the indiscernible zone between human and animal.

### III. The Monstrous: Becoming-Animal

The fascination with monsters—that is, with human and animal oddities and hybrids—is as old as human civilization. Indeed, a history of the monstrous

would constitute a veritable history of culture and civilization, for the monstrous marks the boundary of culture, where it shades off into nature or some other form of radical otherness against which cultural identity is defined. Though the discourse on monstrosity is wildly heterogeneous, this culture-defining property is constant from ancient Greek, Babylonian, and Roman reports of monstrous races to contemporary discussions of animal and human cloning, stem-cell research, and "partial-birth abortions."

From his travels throughout the Middle East and North Africa, the historian and proto-anthropologist Herodotus brought back tales of human beings who live underground and screech like bats, goat-footed men, headless people, and humans who hibernate like bears. Medieval accounts were equally wild. They told of humanoid creatures with spider legs or bird talons, horse-headed humans and bodiless heads. Early modern colonial exploration gave rise to further accounts of monstrous beings and races who seemed to exist, like Shakespeare's Caliban, on the cusp of humanity. Such accounts and assessments were considered credible enough that, in the 1758 edition of his *System of Nature*, Linnaeus included the species *Homo monstrosus*, which included satyrs, pygmies, and other borderline-human creatures.<sup>21</sup>

These curiosities, and instances closer to home of malformed embryos and infants, had to be accounted for. The Greek philosopher Empedocles explained the strange cases reported by Herodotus with a novel theory of evolution. Plants and animals originally made their appearance in the world not as wholes but as detached parts. "Here sprang up many faces without necks, arms wandered without shoulders, unattached, and eyes strayed alone, in need of foreheads." These parts eventually fell together by chance, giving rise to all sorts of monstrous hybrids. "Many creatures were born with faces and breasts on both sides, man-faced ox-progeny, while others sprang forth as ox-headed offspring of man." Eventually, the fittest of these—the flora and fauna we know—survived, though one could occasionally still find other combinations.<sup>22</sup> Empedocles is also credited with holding a view that remained credible and popular well into the 18<sup>th</sup> century: that the imagination of a pregnant woman directly affected the formation of the fetus, such that gazing upon images or statues of monsters could produce monstrous deformities.<sup>23</sup>

Aristotle's view was less extravagant but fully in accord with his conception of natural hierarchy and essential types. "Anyone who does not take after his parents," he wrote, "is really in a way a monstrosity, since in these cases

Nature has in a way strayed from the generic type." Indeed, for Aristotle, the female, insofar as she is a "deformed male," is the first instance of such monstrosity, but one "required by Nature, since the race of creatures has got to be kept in being." Aristotle acknowledges that, in some cases, human beings are born with the appearance of animals, with "the head of a ram or an ox." Such instances, he explains, occur because the biological material provided by the woman is insufficiently mastered by the form-giving power of the man, so that "what remains is that which is most 'general,' and this is the (merely) 'animal.'" Aristotle is careful to say that there is no real becoming-animal here. Rather, these monsters are related to animal forms by "resemblances only."<sup>24</sup>

The Judaeo-Christian tradition was even more obsessed with monsters, the emergence of which it explained not by natural but by divine or supernatural causes. Pagan religions and mythologies were, of course, replete with animal-headed gods, bestiality, and cross-species metamorphoses of all kinds. But Jews and Christians shunned such "unnatural" unions and becomings. In Genesis, God's decision to blot out creation with a flood is, in part, prompted by the coupling of supernatural giants with human women.<sup>25</sup> Within Christianity, monsters were considered by some to be a separate race of beings created by the devil. More commonly they were taken to be indications of the wrath of God or as divine warnings. (*Monstrum*, Augustine pointed out, is etymologically related to *monstrare*, to show, and *monere*, to warn.) God's wrath could be incited by sex acts such as bestiality, sodomy, or masturbation, which, like the monstrous, improperly confounded the divine organization of nature. But monsters were also taken to be prophetic or allegorical. Martin Luther, for example, explained the sighting of a monstrous "monk-calf" on the banks of the Tiber River as an elaborate sign of God's rejection of the papacy and the Catholic priesthood.<sup>26</sup>

This fascination with monsters was carried on by the popular and scholarly writing of the European Renaissance and Enlightenment. Yet now the interest was more secular, often hearkening back to ancient texts that offered naturalistic explanations for the existence of animal and human oddities. The 16<sup>th</sup> and 17<sup>th</sup> century "wonder literature" regularly included monsters and prodigies in catalogues of natural curiosities intended for pleasure reading and popular entertainment.<sup>27</sup> By the 18<sup>th</sup> century, philosophers such as Leibniz and Diderot had placed monsters into the *scala naturae* as "middle" or transitional species. "[T]he most apparently bizarre forms," wrote a contemporary, "serve as a passage to neighboring forms . . . far from

disturbing the order of things, they contribute to it."<sup>28</sup> Once the objects of theological speculation, monsters had become the subjects of scientific analysis.

P.T. Barnum's enormously popular displays of circus "freaks" kept alive the tradition of wonder literature and the curiosity cabinet. Yet Barnum the showman had also jumped on the bandwagon of a nascent evolutionary theory. In the early 1840s, nearly two decades before Darwin's breakthrough, Barnum advertised his side shows as offering missing links in the great chain of being. There one could find:

the preserved body of a Feejee mermaid . . . the Ornithorhincus, or the connecting link between the seal and the duck; two distinct species of flying fish, which undoubtedly connect the bird and the fish; the Siren, or Mud Iguana, a connecting link between the reptiles and fish . . . with other animals forming connecting links in the great chain of Animated Nature.<sup>29</sup>

Barnum's freak shows can easily be read as cruel spectacles that primarily serve to affirm the normality of their spectators. Yet historian Erin O'Connor suggests another reading, one more akin to Barnum's own. In the freak show, O'Connor writes, "[m]onstrosity does not register defect as disease; instead it makes human aberration into an advertisement for a new embodiment."<sup>30</sup>

This view was shared by biologists contemporary with Barnum; and, indeed, the 19<sup>th</sup>-century discourse on monsters played an important role in the development of evolutionary theory. The influential French biologist Étienne Geoffroy Saint-Hilaire and his son Isadore established the field of teratology (literally, the study of monsters), which survives today as a branch of embryology and oncology. Instead of starting from actual "normal" bodies and classifying alternatives as "abnormal," the elder Geoffroy began from what he termed "the anomalous," a virtual field of pure morphological possibilities from which every actual body derives. "Monstrosities," he argued, simply represent one of many actualizations of this virtual field; and, in this respect, they are no different from "normal" bodies. What are called "monstrous" forms are stages in the "normal" development of the fetus, and the existence of such forms simply represents an interruption or diversion from the course of this "normal" development. The "monstrous" form of one species was the "normal" form of another.<sup>31</sup>

Building on the work of the Geoffroys, Camille Dareste founded the science

of teratology, which, like the research of Dr. Moreau, sought experimentally to reproduce monstrosities in the laboratory with the aim of building a "science of all possible bodies" in the "unlimited variability" of their forms. More radically even than the Geoffroys, Dareste considered all forms to be on par with one another, and refused to take the normal body as any kind of natural state or aim. "[I]t is impossible," he wrote, "to establish in any definitive way the limits of the possible."<sup>32</sup>

These claims influenced the work of Darwin, who liberally cited Etienne and Isadore Geoffroy Saint-Hilaire in *The Origin of Species*, and who later called Dareste's research "full of promise for the future." For Darwin, contra Aristotle, evolution was driven by difference, variation, and mutation, and evolution was the process by which species become other. Hence it is not surprising that Darwin, too, noted the evolutionary importance of "monstrosities," which, he remarked "cannot be separated by any clear line of distinction from mere variations."<sup>33</sup>

This effort to replace ancient theories of being and identity with theories of becoming and difference characterizes a vital strand of contemporary philosophical thought. Emmanuel Levinas, Michel Foucault, Jacques Derrida, Luce Irigaray and others have made important contributions to this project. But no one has carried it further than Gilles Deleuze, whose philosophical position is richly informed by biological thought, and who often singles out Geoffroy as an important antecedent to his novel theory of the body and of matter in general. For Deleuze and his frequent collaborator, Félix Guattari, there are no essential divisions within nature, no absolute differences between minerals, vegetables, animals, and humans. Rather, matter is a vast continuum, a field of virtual forces, intensities, thresholds, and powers that, under particular conditions, is actualized in the things and bodies we know. But these things and bodies are not fixed, stable, or given once and for all. They themselves are bundles of forces and capacities that are constantly undergoing changes prompted by encounters with other entities into which they enter relationships. For Deleuze and Guattari, then, things and bodies are not so much beings but becomings.

Like Geoffroy, Deleuze and Guattari do not define a body by its form, its usual functions, or its superficial resemblances to other bodies. Rather, a body is materially related to all other bodies, and its distinctiveness has to do with the particular selection of capacities and powers it actualizes. Human beings are, of course, particular sorts of beings with distinctive sets of capacities. Yet

the human being is not a fixed essence. Like all other entities, human beings are constantly engaged in relations of becoming. And these relations of becoming open us up to other modes of existence. For Deleuze and Guattari, life lived to its fullest is a life that actualizes as many capacities and powers as possible, a life that makes the greatest number of connections to other things and alters itself in the process. Hence, Deleuze and Guattari encourage us to explore becomings beyond those that characterize the narrowly human.

Crucial among these, for Deleuze and Guattari, is becoming animal. If, for Aristotle, "Man" represented the paradigm of the human, then becoming other will begin with a becoming-woman, the first deviation from man. Becoming-animal represents an even further and more radical step, examples of which Deleuze and Guattari find all over the place: in the writing of Kafka and Melville, in the paintings of Francis Bacon, in the music of Mozart and Messiaen, in films such as *Willard* and *Taxi Driver*, and in countless incidents of everyday life. "Becoming animal" does not mean imitating an animal. Again, it is not about given animal forms but about animal capacities and powers. To become animal is to be drawn into a zone of action or passion that one can have in common with an animal. It is a matter of unlearning physical and emotional habits and learning to take on new ones such that one enlarges the scope of one's relationships and responses to the world.<sup>34</sup>

In such becomings, both animal and human become other than what they are or were, something in between. Natalie Jeremijenko's *Ooz*, for example, does not translate human speech into birdsong or vice versa; rather, it creates a common space of action and communication between birds and humans. Brian Conley's *Pseudanuran Gigantica* is not a flesh and blood amphibian but a bizarre technological device that adopts the habits of the Tungara frog in an effort to seduce human visitors. The finches in Mark Dion's aviary are no longer purely natural beings but intersections of nature and culture, as are its human viewers, whose cultural habits Dion displays as natural history.

Likewise, the uncanny, monstrous creatures presented by Ann Sofi-Sidén, Patricia Piccinini, Jane Alexander, Motohiko Odani, and Kathy High summon in us sympathies and identifications that draw us into affective relationships with the non-human. Like Barnum's freaks and the monsters of Dareste and the Geoffroys, these hybrids and transgenics are "advertisements for a new embodiment." They do not solicit our pity but summon our ontological, ethical, and aesthetic curiosity, provoking us to comport ourselves toward them as kin. The "family" of Piccinini's title refers not only to her suckling canine-

porcine-humanoid creatures but to us as well, and to the morphological and evolutionary continuum we share with these animated masses of flesh. Instead of focusing on filial relationships within species, Kathy High highlights the inter-species alliances and symbioses that also characterize the natural world: the blocks of becoming that can be formed between rats and human beings in the exchange of genetic material. These relationships constitute what Deleuze and Guattari call "machinic heterogenesis," a becoming that operates in transgression not only of species boundaries but of boundaries between nature and artifice, science and art.<sup>35</sup>

The post-human world opened up by *Becoming Animal* is surely unsettling and is likely to be repugnant to some, for we are fond of our species and the rung on the ladder we still imagine ourselves to inhabit. After millennia of fearing monsters, we cannot expect to learn to love them overnight, let alone to wish to become them. But, whether we like it or not, Aristotelian and Judaeo-Christian conceptions of human identity and superiority have been largely discredited. Since Darwin and ever more so today, we find ourselves in a new relationship with animals and the rest of nature. We have, indeed, become animal – and vegetable, mineral, and machine as well. No doubt there are still reasons to worry about the teratogenic experiments of Dr. Moreau, Daresté, and contemporary biotechnology. But the erasure or problematizing of distinctions between the human and the animal has its ethical benefits as well. If Deleuze and Guattari are right, becoming animal expands our possibilities for being and acting in the world. And, as *Becoming Animal* reveals, this process increases our sympathies with – and relationships to – our fellow creatures, who are no longer essentially other than us but creatures from whom we can learn about the true, the good, and the beautiful.

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(Footnotes)

- 1 Friedrich Nietzsche, "On Truth and Lies in a Nonmoral Sense," in *Philosophy and Truth: Selections from Nietzsche's Notebooks of the 1870s*, ed. and trans. Daniel Breazeale (New Jersey: Humanities Press International, 1979), p. 80.
- 2 See V.S. Ramachandran, "The Artful Brain," in *The Emerging Mind* (London: Profile Books, 2003), pp. 46–69.
- 3 Alexander Pope, *An Essay on Man*, ed. Maynard Mack (London: Methuen & Co., 1950), Epistle II, pp. 53–55.
- 4 For exemplary texts on these developments, see Lynn Margulis and Dorion Sagan, "Second Nature: The Human Primate at the Borders of Organism and Mechanism," *UMass Magazine* (Fall 1999): [http://www.umass.edu/umassmag/archives/1999/fall\\_99/fall99\\_f\\_andnature.html](http://www.umass.edu/umassmag/archives/1999/fall_99/fall99_f_andnature.html), and *What is Life?* (Berkeley: University of California Press, 1995), especially pp. 213–43; Donna Haraway, "A Cyborg Manifesto," in *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991), pp. 149–81; Evan Eisenberg, *The Ecology of Eden* (New York: Alfred A. Knopf, 1998); Michael Pollan, *The Botany of Desire: A Plant's-Eye View of the World* (New York: Random House, 2001); Manuel De Landa, *A Thousand Years of Nonlinear History* (New York: Zone Books, 1997); Christopher Langton, "Artificial Life," in *Artificial Life* (Redwood City, CA: Addison-Wesley, 1989).
- 5 For different assessments of this development, see N. Katherine Hayles, *How We Became Posthuman* (Chicago: University of Chicago Press, 1999) and Francis Fukuyama, *Our Posthuman Future* (New York: Farrar, Straus, and Giroux, 2003).
- 6 Simon Critchley, *On Honour* (London: Routledge, 2002), p. 34.
- 7 Plato, *The Republic*, trans. Francis Cornford (New York: Oxford University Press, 1945), Book IX, 571c.
- 8 I quote from the King James Bible, with some modifications drawn from Everett Fox, *Genesis and Exodus: A New English Rendition with Commentary and Notes* (New York: Schocken, 1999).
- 9 See G.E.R. Lloyd, "The Development of Zoological Taxonomy," in *Science, Folklore, and Ideology: Studies in the Life Sciences in Ancient Greece* (Cambridge: Cambridge University Press, 1983), p. 43.
- 10 Aristotle, *De Anima*, trans. J.A. Smith, 415a26, in *The Basic Works of Aristotle*, ed. Richard McKeon (New York: Random House, 1941).
- 11 Aristotle, *Politics*, trans. Benjamin Jowett, 1256b, in *Basic Works*.
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